

NOTES ON THE *DERBIDAE* IN THE BRITISH MUSEUM
COLLECTION.—I. *ZORAIDINAE*.

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Elsewhere* I have made tentative and partial attempts to classify the *Derbidae*, based upon Oriental and Malayan forms. Through the courtesy of the authorities of the British Museum and the Imperial Bureau of Entomology, I have been able to examine a number of genera and species hitherto unknown to me, except through inadequate descriptions, among them species from Africa and South America. This has enabled me to correct some errors in my former work, and to commence the preparation of a more satisfactory classification of the genera of the family. The following is a list of genera of the *Zoraidinae*, followed by a list of species of that subfamily in the British Museum collection, and some remarks and descriptions of new species and genera.

ZORAIDINAE.

Tegmina long and narrow; wings very small or not more than half the length of the tegmina, narrow, costal and posterior margins subparallel or converging to a pointed apex, the cubital and claval areas greatly reduced with the cubital and claval veins missing or greatly reduced, the posterior basal area proportionally large and corrugated and used as a stridulating organ; shoulder keels and subantennal processes absent or very small. (*Zoraidinae*.)

List of Genera.

- a*¹. Eyes in front not reaching to the base of clypeus; subcostal cell long, sometimes very narrow(ZORAIDINI).
- b*¹. Antennae shorter than face, ovate, clavate or subclavate, arista apical; 1 to 3 cubital veins reaching the hind margin; female genital styles abortive.
- c*¹. None of the median sectors furcate.
- d*¹. Head as wide as thorax or wider.DIOSPOLIS.
- d*². Head narrower than thorax.
- e*¹. Basal median cell narrow; wings about half the length of the tegmina, apex roundedPROUTISTA.
- e*². Basal median cell broad; wings considerably less than half the length of tegmina, apex acute.
- f*¹. Mesonotum with three distinct carinae.
.CAMMA.
- f*². Mesonotum without carinae, or carinae very indistinct.
.DIOSTROMBUS.
- c*². Third median sector, sometimes apparently the second, furcate.
- g*¹. Face in profile round, not greatly produced between the eyes.
.PAMENDANGA.
- g*². Face in profile conically producedHELCITA.

* Hawaiian Sugar Planters' Experiment Station, Entomological Bull. 12 (1913); Philippine Journ. Sci. D, xii, 2, pp. 49-104 (1917).

- b*². Antennae as long as face or longer, cylindrical or flattened, arista sub-apical; 4 to 6 cubital veins reaching the hind margin; female genital styles normal.
- h*¹. Vertex quadrate, broader than long; face wide; antennae large, flat MINDANA.
- h*². Vertex not broader than wide; face narrow or linear.
- k*¹. Hind margin of tegmen angularly produced between the apex of clavus and the cubital veins.
- l*¹. Hind margin of tegmen serrate LOSBANOSIA.
- l*². Hind margin of tegmen not serrate ZORAIDOIDES.
- k*². Hind margin of tegmen not angularly produced between the apex of clavus and cubital veins.
- m*¹. Costal margin produced on the basal fourth. PEGGIA.
- m*². Costal margin not produced on basal fourth.
- n*¹. Face in profile produced conically between the eyes. PSEUDOHELICITA, g. n.
- n*². Face in profile round, not produced conically.
- o*¹. Hind margin of pronotum straight, not emarginate. NEODIOSTROMBUS, g. n.
- o*². Hind margin of pronotum angularly emarginate. ZORAIDA.
- a*². Eyes in front reaching to the base of the clypeus; subcostal cell very short or absent; female genital styles abortive . . . (SIKAIANINI).
- p*¹. Cubitus arising from the base of the tegmen, basal median cell present.
- q*¹. Basal median cell broad and short, not reaching half-way along tegmen.
- r*¹. Antennae much shorter than thorax and head together, cylindrical, slightly constricted about middle . . . SIKAIANA.
- r*². Antennae as long as head and thorax together, or nearly so. MUIRIA.
- q*². Basal median cell very narrow, reaching to about middle of tegmen. LEOMELICHARIA.
- p*². Cubitus arising from media some distance from base. DISTANTINIA.

List of Species in the British Museum Collection.

- DIOSPOLIS Westwood = *Philadelphia* Kirkaldy.
D. (*Cicada*) * *elongata* Fabr. = *P. pandani* Kirk.; *D. annetti*, sp. n.
- PROUTISTA Kirkaldy = *Afakia* Kirkaldy = *Arfaka* Distant.
P. (*Derbe*) *fritillaris* Boh.; *P.* (*Phenice*) *australis* Dist.;
P. (*Arfaka*) *decisa* Dist.; *P. pseudodecisa*, sp. n.; *P.* (*Phenice*) *moesta* Westw. = *Thracia albipes* Walk. = *Derbe maculata* Westw.

* The generic names within brackets indicate the genus the species was originally described under

3. CAMMA Distant.

C. (Phenice) abdominalis Dist.; *C. (Thracia) biclavata* Westw.; *C. (Phenice) lunulata* Dist.; *C. (Thracia) dilatata* Westw.

4. DIOSTROMBUS Uhler = *Drona* Distant.

D. (Derbe) carnosus Westw.; *D. (Drona) pennata* Dist.; *D. (Drona) grahami* Dist.; *D. (Derbe) lanius* Stål; *D. (Drona) gowdeyi* Dist.

5. PAMENDANGA Distant = *Paraproutista* Muir.

P. (Phenice) majuscula Dist.; *P. (Phenice) nealei* Dist.; *P. (Phenice) superba* Dist.; *P. (Derbe) punctativentris* Kirby; *P. (Phenice) pullata* Dist.; *P. (Phenice) ferruginea* Dist.; *P. rubilinea* Dist.; *P. (Thracia) fasciata* Walk.; *P. (Thracia) abscissa* Walk.; *P. pseudoabscissa*, sp. n.; *P. distantis*, sp. n.; *P. grahami*, sp. n.

6. HELCITA Stål = *Jada* Distant.

H. wahlbergi Stål; *H. (Derbe) nitagalensis* Kirby.

7. LOSBANOSIA Muir.

L. (Zoraida) vuilleti Dist.

8. ZORAIDOIDES Distant.

Z. malabarensis Dist.

9. PSEUDOHELICITA, gen. n.

P. (Zoraida) walkeri Dist.

10. NEODIOSTROMBUS, gen. n.

N. (Thracia) basalis Walk.

11. ZARAIDA Kirkaldy.

a¹. Six cubital veins reaching the hind margin of the tegmina.

.....Subgenus *Neozoraida* nov.

Z. ugandensis Dist.; *Z. motschoulskyi* Dist.; *Z. gilva* Dist.; *Z. (Thracia) obsoleta* Kirby; *Z. fletcheri* Dist.;

a². Four cubital veins reaching hind margin of the tegmina.

b¹. Antennae flat and thinSubgenus *Peggiopsis* Muir.

Z. (Thracia) punctipennis Walk.; *Z. (Thracia) nivifera* Walk.; *Z. (Thracia) rufifinis* Walk.; *Z. spectra* Dist.; *Z. singaporensis*, sp. n.;

b². Antennae cylindrical or only slightly flattened, not thin.

.....Subgenus *Zoraida* Kirk.

c¹. Wings one-third to one-half the length of tegmina.

Z. nyasensis Dist.; *Z. distantis*, sp. n.; *Z. (Derbe) sinuata* Boh.; *Z. (Thracia) pterophoroides* Westw.; *Z. picturata* Dist.;

Z. eransi Dist.; *Z. (Thracia) costalis* Walk.; *Z. (Thracia) scutellaris* Walk.; *Z. (Thracia) sennotata* Walk. = *Z. cydista* Dist.; *Z. borneensis* Dist.; *Z. erythraetis* Dist.; *Z. cyanoptera* Dist.; *Z. cupoecila* Dist.; *Z. consanguinea* Dist.; *Z. (Thracia) fuscipennis* Walk.; *Z. rufirena* Dist.; *Z. ridleyi*, sp. n.; *Z. kirkaldyi*, sp. n.; *Z. (Thracia) cumulata* Walk.; *Z. insulicola* Kirk.; *Z. pattersoni* Dist.; *Z. (Thracia) varipennis* Walk.; *Z. aburiensis*, sp. n.; *Z. (Thracia) essingtonia* Westw.; *Z. (Thracia) albida* Walk.;

c². Wings one-seventh to one-tenth the length of the tegmina.

Z. ceylonica Dist.; *Z. lankana* Dist.; *Z. (Thracia) ephemeralis* Walk.; *Z. histrionica* Dist.; *Z. (Thracia) limnobiaalis* Walk.; *Z. flavocostata* Dist.; *Z. picta* Dist.

12. SIKAIANA Distant = *Iguvium* Distant.

S. (Iguvium) albomaculata Dist.

DIOSPOLIS Westwood.

I have examined the two female specimens of *Cicada elongata* Fabr., one of them without a head, in the Banks collection in the British Museum, upon which Westwood founded this genus, and they are synonymous with *Philadelphia pandani* Kirkaldy. On the right tegmen of one specimen and the left tegmen of the other there is an aberration of the neuriation, forming a small cell at the base of the fourth median sector; this has been figured by Westwood in both tegmina. The head and eyes are not figured wide enough.

D. annetti, sp. n.

Quite typical in structure, the face being slightly broader, especially the apical portion; wings one-third the length of the tegmina.

Bright yellow over clypeus between the carinae, face, vertex, middle of pronotum, and mesonotum; a broad mark down abdominal dorsum, over the lateral portions of abdominal tergites, and hind margin of abdominal sternites; lighter yellow over the antennae, lateral portions of pronotum, and legs; dark brown over rostrum, lateral portions of clypeus, genae, eyes, medio-lateral marks on pronotum, and lateral portions of mesonotum; black on basal portion of abdominal sternites, pregenital plates, and two broad medio-lateral bands down dorsum with a few small yellow spots in them. Tegmina light fuscous, darker over radial cell; seven dark spots in costal and subcostal apical cells; subcosta and radius light brown or yellowish; media and sectors, cubital and claval veins brown; wings slightly fuscous with brown veins.

Anal segment very short, anal style long, narrow; pregenital plate about as long as broad, in profile slightly concave, hind margin produced on lateral fourth, truncate in middle half; genital styles abortive.

Length 4·5 mm. ; tegmen 8 mm.

Hab. NIGERIA (*Dr. Annett, 1903*).

One female, in the B.M. coll. This is the second species of the genus, the type being Australian.

PROUTISTA Kirkaldy.

This genus is quite distinct from *Phenice* Westw. ; the latter does not belong to the *Zoraidinae*.

P. pseudodecisa, sp. n.

Light stramineous, red on clypeus and middle of pronotum, fuscous on apex of rostrum and tarsi ; abdominal dorsum light fuscous and slightly mottled with light marks. Tegmina and wings hyaline, veins brown.

The medio-ventral process of the pygofer forming a small, acute spine, the lateral edges angular beside the anal segment and produced into an acute point ; genital styles with the ventral edge entire, convex on the apical half, apex produced into a long point curved inward, dorsal edge produced into a small curved spine on the basal half, roundly produced in the middle and strongly concave to the apex.

Length 4·5 mm. ; tegmen 7·8 mm.

Hab. AUSTRALIA, Stapleton, N.T. (*G. F. Hill, x. 1913*).

Three males, including the type, in the B.M. coll.

(*To be continued.*)

ON SOME CYNIPID OAK-GALLS NEW TO THE BRITISH FAUNA.

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Our Cecidological researches have naturally led us to pay some attention to the gall-wasps of the British Oaks, but, believing that the *Cynipidae* had been so well worked in comparison with other gall-causers, such as the *Cecidomyiidae* or *Eriophyidae*, we must plead guilty to having somewhat neglected this branch in the past few years. It did not seem to us that many discoveries remained to be made in the gall-wasps, nor did we realize that one generation or another of those exhibiting that most peculiar phenomenon, an alternation of generations, remained to be discovered or proved. For instance, the placing together of *Andricus rhyzomae* and *A. nodifex* as the generations of one species in the following notes has yet to be proved: we have taken this step because of the analogies of *A. rhyzomae* with the other bark galls